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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/160,991	09/25/1998	TZYH-CHYANG CHERNG		6990

30743 7590 09/10/2007  
WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C.  
11491 SUNSET HILLS ROAD  
SUITE 340  
RESTON, VA 20190

EXAMINER
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PAYER, HWEI SIU CHOU

ART UNIT	PAPER NUMBER
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3724

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/160,991

Applicant(s)

CHERNG ET AL.

Examiner

Hwei-Siu C. Payer

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-15, 25, 26, 31, 38-44, 46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-15, 25, 26, 31, 38-44, 46 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## Detailed Action

1. The amendment filed on 6-11-2007 has been entered.
2. Claim 13 as amended is no longer a copied claim from claim 1 of U.S. Patent No. 5,855,149. Claim 13 as amended now requires that the metal powder being delivered to the base is melted by heat from said puddle.
3. Pursuant to a telephone conversation on 8-2-2007 between the applicant's attorney and Mr. Yuen, Special Programs Examiner, it is acknowledged that in the decision mailed on 7-30-2007 is for the petition filed on 8/14/02 instead of 2/13/06 and the RACE was filed on 10/5/06 instead of 10/15/06.

## Claims Objection

Claims 2-15, 25, 26, 31, 38-44, 46 and 47 are objected to because of the following informalities:

(1) In claim 13, lines 6-7, "scanning a laser beam in an area along said path" is incorrect. The phrase should read --scanning in an area along said path with a laser beam--.

(2) In claims 38 and 44, line 7, "scanning a laser" is incorrect. The phrase should read --scanning said area with a laser--.

Appropriate correction is required.

**Claims Rejection - 35 U.S.C. 112, first paragraph**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2-15, 25, 26, 31, 38-44, 46 and 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(1) In claim 13, the limitation of "by heat from said puddle" (newly added in the 6-11-2007 amendment) has no support from the original specification.

(2) In claims 38 and 44, the limitation of "along a further area of said die body" (newly added in the 2-20-2007 amendment) has no support from the original specification.

(3) In claim 47, line 1, "The method" is vague. Is claim 47 directed to a product claim (i.e. a cutting die) <sup>or</sup> ~~or~~ a method claim?

**Claims Rejection - 35 U.S.C. 112, second paragraph**

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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2. Claims 46 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 46 and 47 contradict claims 38 and 44, respectively. Since a blade material is applied to the puddle that is previously heated by the laser while continuously heating the die body along a further area of the die body, therefore, the area on which the laser beam impinges at any given time and the area to which the powder is supplied are not the same area. If the blade material feeder is coaxial with a beam of the laser as required in claims 36 and 47, then the area on which the laser beam impinges at any given time and the area to which the powder is supplied would be the same area.

#### **Remarks**

Claims 13, 38 and 44 as amended are intended to overcome the 103 rejection (Baker U.S. Patent no. 3,952,179 in view of Maybon U.S. Patent No. 5,580,472) in a manner that the area on which the laser beam impinges at any given time and the area to which the powder is supplied are not the same, and further the powder is melt by the puddle previously heated by the laser beam rather than melt directly by the heat from the laser beam. Examiner found no basis or support for the newly added limitations in those claims.

As clearly admitted on the record (see page 7 of the amendment filed on 2-6-2002), the blade material is introduced into the heated area **"while heating said area"**. Thus, the blade material is heated directly by the laser beam rather than heated by the puddle previously heated by the laser beam. Original claim 10, line 7 claims "introducing metal into said path while heating said path".

Further evidence is shown on page 16, lines 12-13 of the specification which states the invention includes a "laser which can locally melt die surface and powder". Thus, it is clear that the laser melts the powder. Also, page 16 (at lines 19-21) of the original specification states "the heating source which is used to melt cladding material and die surface is not limited to lasers". Thus, it is clear that the heating source melts the cladding material.

There is no support from the original specification that powder is melted by the puddle previously heated by the laser beam and not by the direct heating from the laser beam. Further, it is not found the support from the original specification that "upon forming said puddle, applying a blade material in the form of a powder to said puddle while continuing said step of heating said die body along a further area of said die body corresponding to said path such that said powder is melted in said puddle" as now claimed in claims 38 and 44 or "the metal powder being delivered to the base is melted by heat from said puddle" as now claimed in claim 13. Claims 13, 88 and 44 as now amended directly contradict what is disclosed in the original specification.

### **Action Made Final**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### **Point of Contact**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwei-Siu C. Payer whose telephone number is 571-272-4511. The examiner can normally be reached on Monday through Friday, 7:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone numbers for

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the organization where this application or proceeding is assigned are 571-273-8300 for official communications and 571-273-4511 for proposed amendments.

H Payer  
September 2, 2007

/Hwei-Siu C. Payer/  
Primary Examiner, Art Unit 3724